AMENDMENTS TO THE SPECIFICATION

Please replace the present title with the following rewritten title:

NOVEL POLYPEPTIDES, DNAS ENCODING THE SAME AND USE THEREOF

Amend the specification by inserting before the first line the sentence:

This is a Continuation Application under 37 C.F.R. § 1.53(b) of Continuation Application Under 37 C.F.R. § 1.53(d) filed May 19, 2003, which is a Continued Prosecution Application (CPA) of Application No. 09/380,276, filed August 27, 1999, which is a National Stage Application filed under §371 of PCT Application No. PCT/JP98/00799, filed February 26, 1998.

Under the heading "Detailed Description of the Invention", please replace the first six (6) full paragraphs, beginning on page 4, line 20, bridging to page 7, line 5, with the following six (6) rewritten paragraphs:

The invention provides:

1) a polypeptide comprising an amino acid sequence shown in SEQ ID NO. ~~1 or NO. 5~~ 4 or NO. 8,

2) a DNA encoding the polypeptides described above (1),

3) a DNA comprising a nucleotide sequence shown in SEQ ID NO. ~~2 or NO. 6~~ 1 or NO. 5,

4) a DNA comprising a nucleotide sequence shown in SEQ ID NO. ~~3 or NO. 7~~ 2 or NO. 6.

More particularly, the invention is concerned with a polypeptide comprising amino acid sequence shown in SEQ ID NO. ~~1 or 5~~ 4 or 8 in substantially purified form, a homologue thereof, a fragment of the sequence and a homologue of the fragment. Further, the invention is concerned with DNAs encoding the above peptides. More particularly the invention is provided DNAs comprising nucleotide sequence shown in SEQ ID NO. ~~2, 3, 6 or 7~~ 1, 2, 5 or 6, and DNA containing a fragment which is selectively hybridizing to the DNA comprising nucleotide sequence shown in SEQ ID NO. ~~2, 3, 6 or 7~~ 1, 2, 5 or 6.

A polypeptide comprising amino acid sequence shown in SEQ ID NO. ~~1 or 5~~ 4 or 8 in substantially purified form will generally comprise the polypeptide in a preparation in which more than 90%, e.g. 95%, 98% or 99% of the polypeptide in the preparation is that of the SEQ ID NO. ~~1 or 5~~ 4 or 8. A homologue of polypeptide comprising amino acid sequence

shown in SEQ ID NO.~~1 or 5~~ 4 or 8 will be generally at least 70%, preferably at least 80 or 90% and more preferably at least 95% homologous to the polypeptide comprising amino acid sequence shown in SEQ ID NO.~~1~~ 4 over a region of at least 20, preferably at least 30, for instance 40, 60 or 100 more contiguous amino acids. Such a polypeptide homologue will be referred to a polypeptide of the invention.

Generally, a fragment of polypeptide comprising amino acid 25 sequence shown in SEQ ID NO.~~1 or 5~~ 4 or 8 or its homologues will be at least 10, preferably at least 15, for example 20, 25, 30, 40, 50 or 60 amino acids in length, and are also referred to by the term "a polypeptide of the invention".

A DNA capable of selectively hybridizing to the DNA comprising nucleotide sequence shown in SEQ ID NO.~~2, 3, 6 or 7~~ 1, 2, 5 or 6 will be generally at least 70%, preferably at least 80 or 90% and more preferably at least 95% homologous to the DNA comprising nucleotide sequence shown in SEQ ID NO.~~2, 3, 6 or 7~~ 1, 2, 5 or 6 over a region of at least 20, preferably at least 30, for instance 40, 60 or 100 or more contiguous nucleotides. Such DNA will be referred to "a cDNA of the invention".

Fragments of the DNA comprising nucleotide sequence shown in SEQ ID NO.~~2, 3, 6 or 7~~ 1, 2, 5 or 6 will be at least 10, preferably at least 15, for example 20, 25, 30 or 40 nucleotides in length, and will be also referred to "a DNA of the invention" as used herein.

Under the heading "Detailed Description of the Invention", please replace the last paragraph, beginning on page 6, line 25, bridging to page 7, line 5, with the following rewritten paragraph:

A further embodiment of the invention provides host cells transformed with the vectors for the replication and expression of the DNA of the invention, including the DNA SEQ ID NO. ~~2, 3, 5 or 6~~ 1, 2, 5 or 6 or the open reading frame thereof. The cells will be chosen to be compatible with the vector and may for example be bacterial, yeast, insect or mammalian.

Under the heading "Detailed Description of the Invention", please replace the second (2nd) full paragraph, on page 8, lines 6-14, with the following rewritten paragraph:

The polypeptide of the invention includes that which a part of their amino acid sequence is lacking (e.g., a polypeptide comprised of the only essential sequence for revealing a biological activity in an amino acid sequence shown in SEQ ID NO. ~~1~~ 4), that which a part of their amino acid sequence is replaced by other amino acids (e.g., those replaced by an amino acid having a similar property) and that which other amino acids are added or inserted into a part of their amino acid sequence, as well as those comprising the amino acid sequence shown in SEQ ID NO. ~~1 or 5~~ 4 or 8.

Under the heading "Detailed Description of the Invention", please replace the fourth (4^{th}) full paragraph, on page 8, lines 20-24, with the following rewritten paragraph:

The DNA of the invention, specified in (2) includes a group of every nucleotide sequences encoding polypeptides (1) shown in SEQ ID NO. ~~1 or 5~~ 4 or 8. There is a probability that yield of a polypeptide is improved by changing a nucleotide sequence.

Under the heading "Detailed Description of the Invention", please replace the second (2^{nd}) full paragraph, on page 9, lines 3-6, with the following rewritten paragraph:

cDNA carrying nucleotide sequence shown in SEQ ID NO. ~~3~~ 2 is prepared by the following method:

Brief description of Yeast SST method (see USP No. 5,536,637) is as follows.

Under the heading "Detailed Description of the Invention", please replace the first full paragraph, on page 13, lines 1-8, with the following rewritten paragraph:

Once the nucleotide sequences shown in SEQ ID NO. ~~2, 3, 6 or 7~~ 1, 2, 5 or 6 are determined partially or preferably fully, it is possible to obtain DNA encode mammalian protein itself, homologue or subset. cDNA library or mRNA derived from mammals was screened by PCR with any synthesized oligonucleotide primers or by hybridization with any fragment as a probe. It is possible to obtain DNA encodes other mammalian homologue protein from other mammalian cDNA or genome library.

Under the heading "Detailed Description of the Invention", please replace the last full paragraph, on page 13, lines 19-25, with the following rewritten paragraph:

Once the nucleotide sequences shown in SEQ ID NOs. ~~2, 3, 6, or 7~~1, 2, 5 or 6 are determined, DNAs of the invention are obtained by chemical synthesis, or by hybridization making use of nucleotide fragments which are chemically synthesized as a probe. Furthermore, DNAs of the invention are obtained in desired amount by transforming a vector that contains the DNA into a proper host, and culturing the transformant.

Under the heading "Detailed Description of the Invention", please replace the first full paragraph, on page 15, lines 1-17, with the following rewritten paragraph:

In the expression of the polypeptide, for example, in a mammalian cells, for example, the expression vector is prepared by inserting the DNA encoding nucleotide shown in SEQ ID NO. ~~3 or 7~~ 2 or 6 into the downstream of a proper promoter (e.g., SV40 promoter, LTR promoter, metallothionein promoter etc.) in a proper vector (e.g., retrovirus vector, papilloma virus vector, vaccinia virus vector, SV40 vector, etc.). A proper mammalian cell (e.g., monkey COS-7 cell, Chinese hamster CHO cell, mouse L cell etc.) is transformed with the expression vector thus obtained, and then the transformant is cultured in a proper medium to get a desired polypeptide on the cell membrane. A vector described above can be inserted with deletion mutant DNA that encodes sequence, which is deleted transmembrane region from SEQ ID NOs. ~~3 or 7~~ 2 or 6 and the expression vector can be transfected into an appropriate mammalian cell. The aimed soluble protein can be secreted into the culture medium. The polypeptide available by the way described above can be isolated and purified by conventional biochemical method.

Under the heading "Industrial Applicability", please replace the first full paragraph, on page 38, lines 6-15, with the following rewritten paragraph:

Two kinds cDNAs were separated with agarose-gel electrophoresis, and to pT7 Blue-2T-Vector (trade name, Novagen), ligated in and transformed to E. Coli DH5α and then plasmid was prepared. Nucleotide sequences of 5'-end were determined, and the existance of nucleotide sequence OAF065 specific primer F3 were confirmed in both nucleotide sequences. 5'-End nucleotide sequence (ca 1.7 kb) of OAF065α and full length nucleotide sequence of OAF065β were determined and then obtained sequences shown in SEQ ID NOs ~~3 and 7~~ 2 and 6. Open reading frame was searched and deduced amino acid sequences shown in SEQ ID NO.~~1 and 5~~ 4 and 8 were obtained.